

General

Title

Dehydration admission: percentage of admissions with a principal diagnosis of dehydration per 100,000 population, ages 18 years and older.

Source(s)

AHRQ QI research version 5.0. Prevention quality indicator 10 technical specifications: dehydration admission rate. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2015 Mar. 2 p.

National Quality Forum measure information: dehydration admission rate (PQI 10). Washington (DC): National Quality Forum (NQF); 2013 May. 36 p.

Measure Domain

Primary Measure Domain

Related Population Health Measures: Population Use of Services

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of admissions with a principal diagnosis of dehydration per 100,000 population, ages 18 years and older.

Rationale

Dehydration is a serious acute condition that occurs mostly in elderly patients and patients with other underlying illnesses. Dehydration for the most part can be treated in the outpatient setting. Dehydration is often preventable through attention and support for fluid intake, especially in patients at risk (Mentes, 2012; American Medical Directors Association [AMDA], 2009). Those at risk includes, but is not limited to, individuals with cognitive or psychiatric disorders, increased age, co-morbid illness requiring medications

such as diuretics or laxatives, polypharmacy, diabetes, acute gastroenteritis, and living in areas with extreme heat (Wakefield et al., 2008; Jiang et al., 2010; Khalaj et al., 2010). Dehydration is treatable with oral rehydration therapy and/or intravenous (IV) fluids and by addressing the underlying cause (Mentes, 2012; AMDA, 2009). If left untreated, serious complications are possible, including acute kidney injury and mortality (Mentes, 2012; AMDA, 2009). Clinical interventions may prevent serious complications. Examples of such interventions include phone triage and education to promote oral rehydration (Mentes, 2012; Hazratjee et al., 2013) early detection of dehydration (AMDA, 2009), and providing rapid access to treatment for those at highest risk (Konrad et al., 2012). Community interventions include air conditioning for the elderly during intense heat waves (Ostro et al., 2010).

Dehydration can be prevented by increased surveillance of patients at risk in the outpatient setting along with early identification and intervention. Patients with poor access to primary care providers, may seek treatment later, have less access to telephone triage and health education to support home-based management, and may be more likely to seek emergency care.

This measure is an avoidable hospitalization/ambulatory care sensitive condition (ACSC) indicator. ACSC indicators are not measures of hospital quality, but rather measures of outpatient care and other healthcare not related to hospitalizations. The underlying premise for these indicators is that high access to high quality outpatient care may prevent hospital admissions (Billing et al., 1993; van Loenen et al., 2014). In the case of dehydration, such access to high quality care can prevent complications necessitating inpatient admission through encouraging hydration during high risk events, such as gastroenteritis infections, early detection of dehydration, particularly among those that are at high risk for dehydration, and early and effective interventions. These measures are of most interest to comprehensive health care delivery systems, such as some health maintenance organizations (HMOs), accountable care organizations (ACOs), or public health agencies. ACSC indicators correlate with each other and they may be used in conjunction as an overall examination of outpatient care and access to care at a regional level.

Evidence for Rationale

American Medical Directors Association (AMDA). Dehydration and fluid maintenance in the long-term care setting. Columbia (MD): American Medical Directors Association (AMDA); 2009. 29 p. [60 references]

Billings J, Zeitel L, Lukomnik J, Carey TS, Blank AE, Newman L. Impact of socioeconomic status on hospital use in New York City. Health Aff (Millwood). 1993 Spring;12(1):162-73. PubMed

Hazratjee N, Agito M, Lopez R, Lashner B, Rizk MK. Hospital readmissions in patients with inflammatory bowel disease. Am J Gastroenterol. 2013 Jul;108(7):1024-32. PubMed

Jiang HJ, Wier LM, Potter DE, Burgess J. Hospitalizations for potentially preventable conditions among Medicare-Medicaid dual eligibles, 2008. Rockville (MD): Agency for Healthcare Research and Quality; 2010.

Khalaj B, Lloyd G, Sheppeard V, Dear K. The health impacts of heat waves in five regions of New South Wales, Australia: a case-only analysis. Int Arch Occup Environ Health. 2010 Oct;83(7):833-42. PubMed

Konrad D, Corrigan ML, Hamilton C, Steiger E, Kirby DF. Identification and early treatment of dehydration in home parenteral nutrition and home intravenous fluid patients prevents hospital admissions. Nutr Clin Pract. 2012 Dec;27(6):802-7. PubMed

Mentes JC. Managing oral hydration. In: Boltz M, Capezuti E, Fulmer T, Zwicker D, editor(s). Evidence-based geriatric nursing protocols for best practice. 4th ed. New York (NY): Springer Publishing

Company; 2012. p. 419-38.

National Quality Forum measure information: dehydration admission rate (PQI 10). Washington (DC): National Quality Forum (NQF); 2013 May. 36 p.

Ostro B, Rauch S, Green R, Malig B, Basu R. The effects of temperature and use of air conditioning on hospitalizations. Am J Epidemiol. 2010 Nov 1;172(9):1053-61. PubMed

van Loenen T, van den Berg MJ, Westert GP, Faber MJ. Organizational aspects of primary care related to avoidable hospitalization: a systematic review. 2014 Oct;31(5):502-16. PubMed

Wakefield BJ, Mentes J, Holman JE, Culp K. Risk factors and outcomes associated with hospital admission for dehydration. Rehabil Nurs. 2008 Nov-Dec;33(6):233-41. PubMed

Primary Health Components

Dehydration; hyperosmolality; hypernatremia; gastroenteritis; acute kidney injury; ambulatory care sensitive condition (ACSC)

Denominator Description

Population ages 18 years and older in metropolitan area or county (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Discharges, for patients ages 18 years and older, with either:

A principal International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) diagnosis code for dehydration; or

Any secondary ICD-9-CM diagnosis codes for dehydration and a principal ICD-9-CM diagnosis code for hyperosmolality and/or hypernatremia, gastroenteritis, or acute kidney injury

See the related "Numerator Inclusions/Exclusions" field.

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice quideline or other peer-reviewed synthesis of the clinical research evidence

A systematic review of the clinical research literature (e.g., Cochrane Review)

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Additional Information Supporting Need for the Measure

Hospitalization rates for dehydration (Prevention Quality Indicator [PQI] 10) have been shown to be highest among blacks (1.3 times the rate among non-Hispanic whites in 2003) and lowest amongst Asians (Russo, Andrews, & Coffey, 2006). Use of Healthcare Cost and Utilization Project (HCUP) and

State Inpatient Data (SID) data using the Agency for Healthcare Research and Quality (AHRQ) PQI composite, demonstrated a decrease in the AHRQ PQI composite rate from 1,635 to 1,395 per 100,000 adults from 2001 to 2009 (Moy et al., 2013). Declines in potentially preventable hospitalization rates were observed across all income quartiles between these same years (years 2001 and 2009). In all years, rates of hospitalizations were higher among residents of neighborhoods in the three lower income quartiles compared with residents of neighborhoods in the highest income quartile (Moy et al., 2013). Income may be associated with access to care. In an earlier like study, when controlling for income there were no differences in race (Moy et al., 2011).

Dehydration is a common fluid and electrolyte disturbance in the adults, especially in the elderly. Dehydration is best treated by prevention. Once dehydration occurs, if not adequately treated, it can lead to hospitalization, renal failure, and or death. A common cause of dehydration in adults is gastroenteritis (Bresee et al., 2012; Hall et al., 2011). The most common cause of all forms of gastroenteritis in adults is the norovirus (Patel et al., 2008; Glass, Parashar, & Estes, 2009). It is estimated that noroviruses cause 23 million episodes of illness, 65,000 hospitalizations, and 300 deaths each year in the United States (Bresee et al, 2012; Hall et al., 2011; Patel et al., 2008; Glass, Parashar, & Estes, 2009; Glass et al., 1996; Parashar et al., 1998; Pang & Vesikari, 1999; Mead et al., 1999; Echeverria et al., 1983), with most fatalities occurring in elderly patients. Although norovirus typically causes disease epidemics (Glass et al., 1996; Pang & Vesikari, 1999; Echeverria et al., 1983), it is also a common cause of endemic diarrhea in community settings (Widdowson et al., 2004). Approximately 5 to 36 percent of outpatient visits for diarrhea are due to norovirus with similar percentages for patients hospitalized for gastroenteritis (Patel et al., 2008; Glass, Parashar, & Estes, 2009).

Evidence for Additional Information Supporting Need for the Measure

Bresee JS, Marcus R, Venezia RA, Keene WE, Morse D, Thanassi M, Brunett P, Bulens S, Beard RS, Dauphin LA, Slutsker L, Bopp C, Eberhard M, Hall A, Vinje J, Monroe SS, Glass RI, US Acute Gastroenteritis Etiology Study Team. The etiology of severe acute gastroenteritis among adults visiting emergency departments in the United States. J Infect Dis. 2012 May 1;205(9):1374-81. PubMed

Echeverria P, Blacklow NR, Cukor GG, Vibulbandhitkit S, Changchawalit S, Boonthai P. Rotavirus as a cause of severe gastroenteritis in adults. J Clin Microbiol. 1983 Sep;18(3):663-7. PubMed

Glass RI, Kilgore PE, Holman RC, Jin S, Smith JC, Woods PA, Clarke MJ, Ho MS, Gentsch JR. The epidemiology of rotavirus diarrhea in the United States: surveillance and estimates of disease burden. J Infect Dis. 1996 Sep;174 Suppl 1:S5-11. PubMed

Glass RI, Parashar UD, Estes MK. Norovirus gastroenteritis. N Engl J Med. 2009 Oct 29;361(18):1776-85. PubMed

Hall AJ, Rosenthal M, Gregoricus N, Greene SA, Ferguson J, Henao OL, Vinj \tilde{A} © J, Lopman BA, Parashar UD, Widdowson MA. Incidence of acute gastroenteritis and role of norovirus, Georgia, USA, 2004-2005. Emerg Infect Dis. 2011 Aug;17(8):1381-8. PubMed

Mead PS, Slutsker L, Dietz V, McCaig LF, Bresee JS, Shapiro C, Griffin PM, Tauxe RV. Food-related illness and death in the United States. Emerg Infect Dis. 1999 Sep-Oct;5(5):607-25. PubMed

Moy E, Barrett M, Ho K, Centers for Disease Control and Prevention (CDC). Potentially preventable hospitalizations - United States, 2004-2007. Morb Mortal Wkly Rep Surveill Summ. 2011 Jan 14;60 Suppl:80-3. PubMed

Moy E, Chang E, Barrett M, Centers for Disease Control and Prevention (CDC). Potentially preventable hospitalizations - United States, 2001-2009. Morb Mortal Wkly Rep Surveill Summ. 2013 Nov 22;62

National Quality Forum measure information: dehydration admission rate (PQI 10). Washington (DC): National Quality Forum (NQF); 2013 May. 36 p.

Pang XL, Vesikari T. Human astrovirus-associated gastroenteritis in children under 2 years of age followed prospectively during a rotavirus vaccine trial. Acta Paediatr. 1999 May;88(5):532-6. PubMed

Parashar UD, Holman RC, Clarke MJ, Bresee JS, Glass RI. Hospitalizations associated with rotavirus diarrhea in the United States, 1993 through 1995: surveillance based on the new ICD-9-CM rotavirus-specific diagnostic code. J Infect Dis. 1998 Jan;177(1):13-7. PubMed

Patel MM, Widdowson MA, Glass RI, Akazawa K, Vinjé J, Parashar UD. Systematic literature review of role of noroviruses in sporadic gastroenteritis. Emerg Infect Dis. 2008 Aug;14(8):1224-31. PubMed

Russo CA, Andrews RM, Coffey RM. Racial and ethnic disparities in potentially preventable hospitalizations, 2003. Statistical Brief #10. 2006 Jul. In: Healthcare Cost and Utilization Project (HCUP) Statistical Briefs [internet]. Rockville (MD): Agency for Health Care Policy and Research; 2006 Feb.

Widdowson MA, Cramer EH, Hadley L, Bresee JS, Beard RS, Bulens SN, Charles M, Chege W, Isakbaeva E, Wright JG, Mintz E, Forney D, Massey J, Glass RI, Monroe SS. Outbreaks of acute gastroenteritis on cruise ships and on land: identification of a predominant circulating strain of norovirus--United States, 2002. J Infect Dis. 2004 Jul 1;190(1):27-36. PubMed

Extent of Measure Testing

Reliability Testing

The developer evaluated the reliability of risk-adjusted rates using a signal-to-noise ratio metric. The unit of analysis is the county. The noise measure is defined as the within-county variance, which is computed using a formula for the approximation for the variance of adjusted rates that is based on the observed and expected rates (see empirical methods document for details, or, for example Hosmer and Lemeshow [1995]). The signal measure is defined as the variance between counties. Signal-to-noise is computed for each county as [signal / (signal + noise)]. The overall signal-to-noise ratio is the weighted average of the county-specific signal-to-noise ratios where the weights are defined as [1/(signal + noise)^2]). The signal-to-noise ratio across deciles of county population size was evaluated. The overall reliability of the risk adjusted measure is high. More than 80% of counties had signal-to-noise ratios that exceeded a threshold reliability of 0.80. Reliability was lower in counties with smaller populations. The observed signal-to-noise ratios were below 0.80 in counties with populations less than about 2,300 persons. This finding implies that when rates are smoothed, the rates for counties with smaller populations will be shifted more toward the overall (national) population rate.

Overall, the risk-adjusted rate is strongly reliable. Based on a norm of a signal-to-noise ratio of 0.80, 80% of areas exceed the norm. Reliability is less than the norm in areas with population less than approximately 2,300 persons, meaning that the performance score is reliability adjusted closer to the shrinkage target in those areas.

Validity Testing

The developer examined the complexity of the numerator cases from 2008 to 2012 using three metrics: 1) the percent of discharges with comorbidities can increase the risk of dehydration, 2) the mean number of comorbidities as defined by the Agency for Healthcare Research and Quality (AHRQ) Comorbidity Index and 3) the mean age in years. The purpose of this analysis is to determine whether as rates of dehydration hospitalizations have decreased over time, the complexity of the remaining numerator cases has increased over time. Each of the three complexity metrics was calculated for each county in the State Inpatient Databases (SID); the distribution of the metrics across all counties is provided in Table 5 of the

original measure documentation.

From 2008 to 2012, there was less than 10% change in the percent of cases with all comorbidities known to have higher risk for dehydration except renal failure which demonstrated a 10% decrease. However, the mean number of comorbidities across counties increased by 11%. The number of numerator observations with a behavioral health comorbidity increased by 22% but the total number remained low (mean of 0.21 in 2008 compared to 0.25 in 2012). Mean age remained unchanged. From this, we conclude that there is only modest evidence of increasing complexity in the numerator population during the period of decrease, suggesting that the decrease does not simply reflect the shifting of non-complex patients from hospital care to other settings.

Refer to the original measure documentation for additional measure testing information.

Evidence for Extent of Measure Testing

Hosmer DW, Lemeshow S. Confidence interval estimates of an index of quality performance based on logistic regression models. Stat Med. 1995 Oct 15;14(19):2161-72. PubMed

National Quality Forum measure information: dehydration admission rate (PQI 10). Washington (DC): National Quality Forum (NQF); 2013 May. 36 p.

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Ambulatory/Office-based Care

Hospital Inpatient

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Regional, County or City

Statement of Acceptable Minimum Sample Size

Does not apply to this measure

Target Population Age

Age greater than or equal to 18 years

Target Population Gender

Either male or female

National Framework for Public Health Quality

Public Health Aims for Quality

Population-centered

Risk Reducing

Vigilant

National Strategy for Quality Improvement in Health Care

National Quality Strategy Priority

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Not within an IOM Care Need

IOM Domain

Not within an IOM Domain

Data Collection for the Measure

Case Finding Period

Users may specify a time period; but the time period is generally one year.

Note: The reference population rates and signal variance parameters assume a one-year time period.

Denominator Sampling Frame

Geographically defined

Denominator (Index) Event or Characteristic

Geographic Location

Patient/Individual (Consumer) Characteristic

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions

Population ages 18 years and older in metropolitan area (MA) or county. Discharges in the numerator are assigned to the denominator based on the MA or county of the patient residence, not the MA or county of the hospital where the discharge occurred.

Note: The term MA was adopted by the United States (U.S.) Census in 1990 and referred collectively to metropolitan statistical areas (MSAs), consolidated metropolitan statistical areas (CMSAs), and primary metropolitan statistical areas (PMSAs). In addition, "area" could refer to either 1) Federal Information Processing Standard (FIPS) county, 2) modified FIPS county, 3) 1999 Office of Management and Budget (OMB) Metropolitan Statistical Area, or 4) 2003 OMB Metropolitan Statistical Area. Micropolitan Statistical Areas are not used in the Quality Indicator (QI) software.

Exclusions

Unspecified

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions

Discharges, for patients ages 18 years and older, with either:

A principal International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) diagnosis code for dehydration; or

Any secondary ICD-9-CM diagnosis codes for dehydration and a principal ICD-9-CM diagnosis code for hyperosmolality and/or hypernatremia, gastroenteritis, or acute kidney injury

Note:

By definition, discharges with a principal diagnosis of dehydration, hyperosmolality and/or hypernatremia, gastroenteritis, or acute kidney injury are precluded from an assignment of Major Diagnostic Categories (MDC) 14 by grouper software. Thus, obstetric discharges should not be considered in the Prevention Quality Indicator (PQI) rate, though the Agency for Healthcare Research and Quality (AHRQ) Quality Indicators (QITM) software does not explicitly exclude obstetric cases.

Refer to the original measure documentation for ICD-9-CM codes. See also the Prevention Quality Indicators Appendices.

Exclusions

Exclude cases:

Transfer from a hospital (different facility)

Transfer from a Skilled Nursing Facility (SNF) or Intermediate Care Facility (ICF)

Transfer from another health care facility

With any-listed ICD-9-CM diagnosis codes for chronic renal failure
With missing gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year
(YEAR=missing), principal diagnosis (DX1=missing), or county (PSTCO=missing)

Numerator Search Strategy

Institutionalization

Data Source

Administrative clinical data

Type of Health State

Proxy for Health State

Instruments Used and/or Associated with the Measure

Unspecified

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Does not apply to this measure (i.e., there is no pre-defined preference for the measure score)

Allowance for Patient or Population Factors

not defined yet

Description of Allowance for Patient or Population Factors

The predicted value for each case is computed using a hierarchical model (logistic regression with area random effect) and covariates for gender and age (in 5-year age groups). Because they cannot individually observe the age and gender of each person in a counties population, the developer uses the age and gender distribution of the county to estimate the number of "cases" in each age gender group. The reference population used in the regression is the universe of discharges for states that participate in the Healthcare Cost and Utilization Project (HCUP) State Inpatient Data (SID) for the year 2010 (combined), a database consisting of 46 states and approximately 38 million adult discharges, and the United States (U.S.) Census data by county. The expected rate is computed as the sum of the predicted

value for each case divided by the number of cases for the unit of analysis of interest (i.e., area). The risk adjusted rate is computed using indirect standardization as the observed rate divided by the expected rate, multiplied by the reference population rate.

Refer to the original measure documentation for the specific covariates for this measure.

Standard of Comparison

not defined yet

Identifying Information

Original Title

PQI 10: dehydration admission rate.

Measure Collection Name

Agency for Healthcare Research and Quality (AHRQ) Quality Indicators

Measure Set Name

Prevention Quality Indicators

Submitter

Agency for Healthcare Research and Quality - Federal Government Agency [U.S.]

Developer

Agency for Healthcare Research and Quality - Federal Government Agency [U.S.]

Funding Source(s)

Agency for Healthcare Research and Quality (AHRQ)

Composition of the Group that Developed the Measure

The Agency for Healthcare Research and Quality (AHRQ) Quality Indicator (QI) measures are developed by a team of clinical and measurement experts in collaboration with AHRQ. The AHRQ QIs are continually updated as a result of new research evidence and validation efforts, user feedback, guidance from the National Quality Forum (NQF), and general advances in the science of quality measurement.

Financial Disclosures/Other Potential Conflicts of Interest

None

Endorser

National Quality Forum - None

NQF Number

not defined yet

Date of Endorsement

2015 Sep 2

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2015 Mar

Measure Maintenance

Measure is reviewed and updated on a yearly basis

Date of Next Anticipated Revision

Spring 2016 (version 6.0, including International Classification of Diseases, Tenth Revision, Clinical Modification [ICD-10-CM] and International Classification of Diseases, Tenth Revision, Procedure Coding System [ICD-10-PCS] compatible software)

Measure Status

This is the current release of the measure.

This measure updates previous versions:

AHRQ QI. Prevention quality indicators #10: technical specifications. Dehydration admission rate [version 4.4]. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2012 Mar. 2 p. AHRQ quality indicators. Prevention quality indicators: technical specifications [version 4.4]. Appendices. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2012 Mar. 6 p.

Measure Availability

Source	available from	the Agency	for Healthcare	Research	and Quality	(AHRQ)	Quality	Indicators	(QI)	Web
cito										

For more information, contact the AHRQ QI Support Team at E-mail: QIsupport@ahrq.hhs.gov; Phone: 301-427-1949.

Companion Documents

The following are available:

AHRQ quality indicators. Prevention quality indicators (PQI) parameter estimates [version 5.0].
Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2015 Mar. 21 p. This document
is available from the AHRQ Quality Indicators Web site
AHRQ quality indicators. Prevention quality indicators benchmark data tables [version 5.0]. Rockville
(MD): Agency for Healthcare Research and Quality (AHRQ); 2015 Mar. 9 p. This document is available
from the AHRQ Quality Indicators Web site
AHRQ quality indicators. Prevention quality indicators (PQI) composite measure workgroup. Final
report. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2006 Apr 7. various p.
This document is available from the AHRQ Quality Indicators Web site
HCUPnet: a tool for identifying, tracking, and analyzing national hospital statistics. [Web site].
Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); [accessed 2015 Sep 10].
HCUPnet is available from the AHRO Web site

NQMC Status

This NQMC summary was completed by ECRI on December 19, 2002. The information was verified by the Agency for Healthcare Research and Quality on January 9, 2003.

This NQMC summary was updated by ECRI Institute on April 6, 2004, February 18, 2005, February 27, 2006, June 15, 2007, November 26, 2008 and May 22, 2010.

This NQMC summary was reviewed and edited by ECRI Institute on May 16, 2011.

This NQMC summary was retrofitted into the new template on July 13, 2011.

This NQMC summary was updated by ECRI Institute on February 22, 2013 and again on December 1, 2015. The information was verified by the measure developer on January 19, 2016.

Copyright Statement

No copyright restrictions apply.

Production

Source(s)

AHRQ QI research version 5.0. Prevention quality indicator 10 technical specifications: dehydration admission rate. Rockville (MD): Agency for Healthcare Research and Quality (AHRQ); 2015 Mar. 2 p.

National Quality Forum measure information: dehydration admission rate (PQI 10). Washington (DC): National Quality Forum (NQF); 2013 May. 36 p.

Disclaimer

NQMC Disclaimer

The National Quality Measures Clearinghouseâ, ¢ (NQMC) does not develop, produce, approve, or endorse the measures represented on this site.

All measures summarized by NQMC and hosted on our site are produced under the auspices of medical specialty societies, relevant professional associations, public and private organizations, other government agencies, health care organizations or plans, individuals, and similar entities.

Measures represented on the NQMC Web site are submitted by measure developers, and are screened solely to determine that they meet the NQMC Inclusion Criteria.

NQMC, AHRQ, and its contractor ECRI Institute make no warranties concerning the content or its reliability and/or validity of the quality measures and related materials represented on this site. Moreover, the views and opinions of developers or authors of measures represented on this site do not necessarily state or reflect those of NQMC, AHRQ, or its contractor, ECRI Institute, and inclusion or hosting of measures in NQMC may not be used for advertising or commercial endorsement purposes.

Readers with questions regarding measure content are directed to contact the measure developer.